

REMARKS

Applicant acknowledges receipt of the Office action mailed February 8, 2007, and thanks the Examiner for the thorough consideration given the present application. Claims 1, 2, and 4-12 were pending in the application. By this paper, claims 1, 2, and 4-12 are amended and claims 13-16 are added. Claims 1, 2, and 4-16 will be pending in the application upon entry of this amendment. No new matter is added by new claims 13-16. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

Amendments to the Specification

The specification has been amended to clarify use of the terms "AgroFibre" and "AgroBinder," and to properly identify them as trademarks/trade names in the specification. No new matter is added by the amendments to the specification.

A cross-reference to the related PCT application has also been added. This claim has already properly been made in the present application and has been recognized on the filing receipt. No new matter is added.

Claim Rejections Under 35 U.S.C. § 112

The applicant has amended the claims to overcome the claim rejections under 35 USC § 112.

The trademarks/trade names "AgroFibre" and "AgroBinder" have been replaced with "agricultural fibre" and "natural adhesive formulation" respectively. This is clearly supported by the description on page 4, paragraphs 2 and 3 of the filed PCT application.

The phrase "starch carrier" has been deleted from claim 1, and claimed in new dependent claim 13. The phrase "preferably oxidized starch" has been deleted from claim 5 and claimed in new dependent claim 14. The phrase "preferably in the form of aqueous solution" has been deleted from claim 6 and claimed in new dependent claim 15. The phrase "preferably boron-containing compound" has been deleted from claim 7 and claimed in new dependent claim 16.

The term "self-retaining" has been deleted from claims 1 and 5. The applicant wishes to clarify that by "self-retaining", it was meant that the natural adhesive formulation (e.g., AgroBinder) is able to retain to the agricultural fibres (e.g., AgroFibre). From page 6, paragraphs 5 and 6, the examiner will note that the retention aid is a component of the natural adhesive formulation (e.g., the AgroBinder). Accordingly, the natural adhesive formulation is "self-retaining" in that there is no need to have an additional external component other than the components which are present in the natural adhesive formulation itself. Nevertheless, to avoid confusion, the applicant has deleted the term "self-retaining" from claims 1 and 5.

Rejection Under 35 U.S.C. § 103

The present invention relates to agricultural fibres, also known as lignocellulosic fibres, which do not have any inherent binding properties. Therefore, it is necessary to add a binder to the lignocellulosic fibres to assist in the binding. Further, the applicant has amended claim 1 to include the feature that in the agricultural fibre slurry, "the major component in the agricultural fibre slurry is the agricultural fibre".

The examiner found claims 1-8 as being unpatentable over Fitt et al. (US 5,358,559) in view of Sheperd (US 1,891,732). The applicant respectfully disagrees.

Fitt et al. discloses a starch-based corrugating adhesive of the carrier, no-carrier and carrier-no-carrier type which are prepared by adding hemicellulose to the adhesive composition to obtain improved green strength and water resistance. The hemicellulose in this case is only a minor ingredient in the adhesive. Further, the adhesive is for use with a corrugated medium. Fitt et al. does not describe the corrugated medium. In the present invention, the agricultural fibres form a major portion of the agricultural fibre slurry and the slurry can ultimately be used for the manufacturing of moulded shape bodies and paper liners, without the addition of a further medium.

Sheperd discloses a building board composed of cereal straw fibres. In Sheperd's disclosure, the cereal straw fibres are relieved of all or substantially all of the naturally gummy or gum-like materials contained in the raw stock before being felted into a continuous fibrous sheet. The crux of Sheperd's invention lies in the removal of the naturally gummy or gum-like materials from the cereal straw fibres. Accordingly, it

would not be obvious to one of the ordinary skill in the art to add a binder to Shepard's fibrous sheet when Shepard's fibrous sheet can bind well without natural gum.

For the foregoing reasons, the applicant respectfully submits that claims 1-8 are patentable over Fitt et al and Sheperd alone or in combination.

The examiner found claims 9 and 11 as being unpatentable over Fitt et al. (US 5,358,559), Sheperd (US 1,891,732), and Berliner (US 2,898,260) in further view of Arnold et al. (US 5,849,152). The applicant respectfully disagrees.

Berliner relates to fibre hardboard and a process of making the fibre hardboard from wood tissue of desert shrubs, which wood tissue, when processed, yields materials that serve as binders to bond the fibres together in the board formed therefrom. In Berliner's disclosure, the wood tissue itself yields materials that serve as binders and no external binders are used, unlike in the present invention where the fibres and the binders are separate items.

Arnold et al. describes a process for the production of shaped bodies from fibre and binder mixtures. Further, in Arnold's disclosure, the main ingredient in the shaped bodies is the starch rather than the fibres, which is opposed to what the present invention is claiming.

Accordingly, it would not be obvious to one of the ordinary skill in the art to combine the inventions of Fitt et al., Sheperd, Berliner and Arnold et al. to arrive at the present invention, i.e. an agricultural fibre slurry capable of being manufactured into moulded shaped bodies, the agricultural fibre slurry comprising an agricultural fibre and a natural adhesive formulation, with the major component being the agricultural fibre.

The applicant therefore respectfully submits that, for at least the foregoing reasons, claims 9 and 11 are patentable over Fitt et al., Sheperd, Berliner and Arnold et al. alone or in combination.

The examiner found claims 10 and 12 as being unpatentable over Fitt et al. (US 5,358,559), Sheperd (US 1,891,732), and Berliner (US 2,898,260) in further view of Palese et al. (US 2,681,599).

Palese et al. relates to the use of synthetic resins in pulp molding process, and product obtained therefrom. The present invention discloses a natural adhesive formulation. The examiner has indicated that pulp composed of the fibres disclosed in

the instant invention could be used in the molding process disclosed by Palese et al. The applicant respectfully disagrees. Firstly, the composition used in the molding process is different in the Palese disclosure and the present invention. Accordingly, different compositions would result in different molding processes. Further, it has been previously explained above that Fitt et al, Sheperd and Berliner should not be combined to be cited against the present invention.

For at least the foregoing reasons, applicant respectfully submits that claims 10 and 12 are patentable over Fitt et al., Sheperd, Berliner and Palese et al. alone or in combination.


Conclusion

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (314) 446-7636.

It is not believed that any fees are owed by the timely filing of this response. However, should any fees be required, the Commissioner is authorized to charge any required fees to Deposit Account No. **08-0750**. Further, if there is ever any other fee deficiency or overpayment of any fees in connection with this patent application, the Commissioner is authorized to charge such deficiency or credit such overpayment to Deposit Account No. **08-0750**.

Respectfully submitted,

Dated: May 8, 2007

By: 
Brian G. Panka, Reg. No. 53,430

HARNES, DICKEY & PIERCE, P.L.C.
7700 Bonhomme Avenue, Suite 400
St. Louis, Missouri 63105
(314) 726-7500
BGP/lds